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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/673,600	09/29/2003	Kirk Price	HSJ920030184US1	2397

7590 11/29/2004  
Bracewell & Padtterson, LLP  
P.O. Box 61389  
Houston, TX 77208-1389

EXAMINER
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FIGUEROA, NATALIA

ART UNIT	PAPER NUMBER
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2651

DATE MAILED: 11/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/673,600	Applicant(s) PRICE ET AL.	
	Examiner Natalia Figueroa	Art Unit 2651	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                                                 |                                                                                        |
|-------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                                                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                                            | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>09/29/2003</u> . | 6) <input type="checkbox"/> Other: ____                                                |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statement (IDS) submitted on September 29, 2003 (09/29/2003) is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-2, 5, 9-11 and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by Serizawa (USPN 6,594,099).

Regarding claim 1, Serizawa discloses a hard disk drive (abstract and fig. 10), comprising an enclosure having a spindle motor mounted thereto and an axial thickness (fig. 10 and col. 5, lines 45-61); a magnetic disk mounted to the spindle motor for rotation relative to the enclosure (fig. 10 and col. 5, lines 45-61), the magnetic disk having an axis of rotation and a storage area (fig. 10 and col. 5, line 52-col. 6, line 5); an actuator mounted to the enclosure and having a head for reading information from and/or writing information to the magnetic disk (fig. 10 and col. 5, line 52-col. 6, line 5); and the enclosure also having a disk region located over at least a portion of the storage area of the magnetic disk, the disk region having an axial thickness

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that is less than the axial thickness of the enclosure to define a working magnetic gap for erasing the magnetic disk while the magnetic disk is inside the enclosure (figs. 10 and 13 and col. 5, line 65-col. 6, line 41).

Regarding claim 2, Serizawa further discloses that the enclosure has a base and a cover, and the disk region is located on portions of both the base and the cover (fig. 10 and col. 5, lines 45-60).

Regarding claim 5, Serizawa further discloses that the disk region has a length extending in a radial direction, relative to the axis of the magnetic disk, that spans an entire radial length of the storage area of the magnetic disk, such that the entire storage area may be erased (figs. 1, 6 and 13 and col. 6, lines 26-41).

Regarding claims 9 and 10, claims 9 and 10 have limitations similar to those treated in the above rejections of claim 1, and are met by the references as discussed above. Claims 9-10 however also recites the following limitation "a disk erase apparatus having a high strength magnetic field for erasing a magnetic disk while the magnetic disk is located inside a hard disk drive assembly." Serizawa further discloses this apparatus in (fig. 13 and col. 6, lines 26-41).

Regarding claims 11 and 14, claims 11 and 14 have limitations similar to those treated in the above rejections of claims 2 and 5, and are met by the references as discussed above.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 3-4, 6-8, 12-13 and 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Serizawa.

Regarding claims 3 and 4, Serizawa is relied upon as stated above. Serizawa fails to explicitly teach that the disk region is formed by an indentation in the enclosure and that the indentation is a rectangular notch.

However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the size of the notch, hence reducing the magnetic gap and increasing and concentrating the magnetic flux density for erasing, furthermore it is obvious in the art that changes in size or shape wherein the gap (notch on the enclosure for erasing) and the optimization of such ranges (the spacing in the gap between the erasing gap and of the erasing transducer) will not support the patentability of the subject matter unless there is evidence that the given range is critical or unexpected results occur. Furthermore, routine experimentation from whether you change the size and spacing of the gap for the concentration of the magnetic flux would be a normal engineering endeavor since no unexpected results seem to occur, is merely changing the spacing of the gap, *In re Rinehart*, 531 F.2d 1048, 189 USPQ 143 (CCPA

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1976), *In re Rose*, 220 F.2d 459, 105 USPQ 237 (CCPA 1955), *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955) and *In re Hoeschele*, 406 F.2d 1403, 160 USPQ 809 (CCPA 1969).

Regarding claims 6 and 7, Serizawa is relied upon as stated above. Serizawa fails to explicitly teach that the disk region has a width that is transverse to the radial direction, and the width is less than a width of the enclosure and that the enclosure comprises a base and a cover, and the width of the disk region on the base differs from the width of the disk region on the cover.

However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the size of the notch, hence reducing the magnetic gap and increasing and concentrating the magnetic flux density for erasing, furthermore it is obvious in the art that changes in size or shape wherein the gap (notch on the enclosure for erasing) and the optimization of such ranges (the spacing in the gap between the erasing gap and of the erasing transducer) will not support the patentability of the subject matter unless there is evidence that the given range is critical or unexpected results occur. Furthermore, routine experimentation from whether you change the size and spacing of the gap for the concentration of the magnetic flux would be a normal engineering endeavor since no unexpected results seem to occur, is merely changing the spacing of the gap, *In re Rinehart*, 531 F.2d 1048, 189 USPQ 143 (CCPA 1976), *In re Rose*, 220 F.2d 459, 105 USPQ 237 (CCPA 1955), *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955) and *In re Hoeschele*, 406 F.2d 1403, 160 USPQ 809 (CCPA 1969).

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Regarding claim 8, Serizawa is relied upon as stated above. Serizawa further discloses reducing stray magnetic fields to prevent motor rotor demagnetization damage (col. 7, line 57-col. 8, line 27). Serizawa fails to explicitly teach that the working magnetic gap increases a gradient of magnetic flux density as the hard disk drive is inserted into a disk erase apparatus.

However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the size of the notch, hence reducing the magnetic gap and increasing and concentrating the magnetic flux density for erasing, furthermore it is obvious in the art that changes in size or shape wherein the gap (notch on the enclosure for erasing) and the optimization of such ranges (the spacing in the gap between the erasing gap and of the erasing transducer) will not support the patentability of the subject matter unless there is evidence that the given range is critical or unexpected results occur. Furthermore, routine experimentation from whether you change the size and spacing of the gap for the concentration of the magnetic flux would be a normal engineering endeavor since no unexpected results seem to occur, is merely changing the spacing of the gap, *In re Rinehart*, 531 F.2d 1048, 189 USPQ 143 (CCPA 1976), *In re Rose*, 220 F.2d 459, 105 USPQ 237 (CCPA 1955), *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955) and *In re Hoeschele*, 406 F.2d 1403, 160 USPQ 809 (CCPA 1969).

Regarding claims 12 and 13, claims 12 and 13 have limitations similar to those treated in the above rejections of claims 3 and 4, and are met by the references as discussed above.

Regarding claims 15 and 16, claims 15 and 16 have limitations similar to those treated in the above rejections of claims 6 and 7, and are met by the references as discussed above.

Regarding claim 17, claim 17 has limitations similar to those treated in

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the above rejections of claim 8, and are met by the references as discussed above.

*Conclusion*

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following documents are cited to further show the state of the art with respect to disk erasing.

- a) Tamura et al (USPN 6,570,727): Discloses a disk erasing information means.
- b) Lim et al (USPN 6,522,498): Discloses a magnetic shield for flux leakage.
- c) Brown et al (USPN 4,553,183): Discloses a disk drive having improved housing.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Natalia Figueroa whose telephone number is (703) 305-1260.

The examiner can normally be reached on Monday - Thursday 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh N. Tran can be reached on (703) 305-4040. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AFM  
NFM

  
SINH TRAN  
PRIMARY EXAMINER